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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/607,330
Filing Date: June 26, 2003
Appellant(s): MALNOE ET AL.

Robert M. Barrett
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 5-8-09 appealing from the Office action mailed 8-15-08.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6197361	Anantharaman et al.	3-2001
5,905,089	Hwang et al.	5-1999

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 4, 6, 8, and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Anantharaman et al (US 6,197,361).

A composition comprising a therapeutically effective amount of a thermally extruded plant material that includes one or more phytochemical agents capable of inhibiting at least one of enzymatic and transcriptional activity to inhibit inflammation in a mammal, wherein the one or more phytochemical agents are selected from the group

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consisting of sesquiterpene lactones, prebiotic fibers, dietary agents, and combinations thereof, and wherein the plant material comprises at least 0.5% to less than 5% by weight of the composition and wherein the composition further comprising a component selected from the group consisting of a starch source, a protein source, a fat source and combinations thereof is apparently claimed.

The reference of Anantharaman et al., anticipates the instant claims by disclosing a gelatinized cereal product comprising chicory plant material and a protein source. The chicory plant material is an extrusion cooked (i.e. thermal) product and may be in a dried pellet form (i.e. fraction). Anantharaman discloses that chicory comprise of sesquiterpene lactones in a concentration of at least 0.5% by weight (column 1, lines 62-67, column 2, lines 21-65, claims 1-7, e.g.). Please note that because there is not a difference in the cited composition and the instant claims, the functional effects of inhibiting at least one of the enzymatic and transcriptional activity, inflammation in a mammal would be inherent.

Therefore, the reference is deemed to anticipate the instant claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 11, 16, 63 and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anantharaman et al as applied to claims 1, 4, 6, 8 and 10 above, and further in view of Hwang et al (US 5,905,089).

The teaching of Anantharaman et al has been set forth above but is silent with respect to particular lactones which include α -methylenebutyrolactone.

The reference of Hwang et al beneficially teaches therapeutically effective amounts of sesquiterpene lactones from plant extracts (composition) which includes α -methylenebutyrolactones that is capable of inhibiting or reducing the severity of a severe inflammatory response from enzyme activity such as cyclooxygenase and transcriptional activity derived from NF-kB as instantly claimed. The composition further includes a fat source such as olive oil, as claimed. Such active sesquiterpene lactones may be used in various combination or mixtures (see abstract, column 5, lines 1-5, lines 40-65, column 5, lines 1-9, column 6, lines 14-36, Examples 1, 4 and 5, e.g.).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to further include into the composition of Anantharaman the α -methylenebutyrolactones taught by Hwang based on the beneficial teachings of treating severe inflammatory disorders. The adjustment of particular conventional working conditions is deemed merely a matter of judicious selection and routine optimization, which is well within the purview of the skilled artisan.

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was prima facie obvious to one of

ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of the evidence to the contrary.

(10) Response to Argument

Anticipation argument:

Appellant argues that anticipation is a factual determination that requires the presence in a single prior art disclosure of each and every element of a claimed invention and cites the case law *Lewmar Marine, Inc v. Barient, Inc.* Appellant argues that the reference of Anantharaman does not disclose that sesquiterpenes lactones are in a concentration of at least 0.5% by weight. Appellant argues that a claim is anticipated only if each and every element as set forth in the claim is found either expressly or inherently described, in a single prior art reference and cites the case law *Verdegaal Bros. v. Union Oil of California*. Appellant argues that a reference disclosing *substantially the same thing* is not enough to anticipate. Appellant argues that anticipation cannot be shown by combining more than one reference to show the elements of the claimed invention and cites the case law *In re Saunders*. Appellant finally argues that anticipation cannot be shown by combining more than one reference to show the elements of the claimed invention and cites the case law *In re Saunders*. Appellant's arguments have been fully considered but not found to be persuasive of error.

In response, the Examiner agrees with Appellant's arguments along with the case law cited with respect that a claim is anticipated only if each and every element in

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the claim is found either expressly or inherently described in a single prior art reference. The reference of Anantharaman et al. anticipates the instant claims by disclosing a gelatinized cereal product comprising chicory plant material and a protein source. The chicory plant material is an extrusion cooked (i.e. thermal) product and may be in a dried pellet form (i.e. fraction). Although Appellant argues that Anantharaman does not disclose that chicory comprise of sesquiterpene lactones in a concentration of at least 0.5% by weight, this limitation is not required by the instant claims. What is required by the instant claims is that the plant material of the composition includes at least 0.5% by weight, which is found in the teaching of Anantharaman. There is no difference in the cited composition and the instant claims, therefore, the functional effects of inhibiting at least one of the enzymatic and transcriptional activities, and inflammation in a mammal would be inherent. The cited prior art composition and the instant claimed invention are not substantially the same (as argued by Appellant), they are the same as instantly claimed. Both the cited composition and the instantly claimed composition are gelatinized cereal products which contain the plant material chicory that are processed in the same manner (see Appellant's specification pages 11, e.g.). Both the claimed composition and the cited prior art of Anantharaman are thermally extruded and the plant material chicory contain sesquiterpene lactones. Both the cited composition and the instantly claimed composition are gelatinized cereal products comprising chicory plant material and a protein source.

Appellant argues that there is a significant structural difference in the cited composition and the instant claims, considering that the inflammation inhibiting nature of

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the present claims is a unique aspect of the invention and is not disclosed or suggested by the cited reference of Anantharaman. This argument is not found to be persuasive for reasons stated above and of record. Although the sesquiterpene lactones appear to be removed by the process of gelatinization, this process would *not* apparently remove 100% of the lactones because Appellant's instant specification also uses the same gelatinization process in making the claimed composition and 100% would be removed from the claimed invention as well. However, since the Appellant is claiming the use of the same process as the cited art of Anantharaman and using the same plant material of chicory, then there should remain sesquiterpene lactones in the claimed composition and there should remain sesquiterpene lactones in the cited prior art composition of Anantharaman as well. Page 16 of the instant specification, Example 1, and column 4, lines 8-21, of the cited reference of Anantharaman demonstrate that both compositions were made by the same process and ingredients. For example, page 16 of the instant specification discloses:

EXAMPLE 1: Dried Pet Food

A feed mixture is made up of about 58% by weight of corn, about 6% by weight of corn gluten, about 23% by weight of meat and meal, dried chicory and salts, vitamins and minerals making up the remainder. The dried chicory is in the form of a chicory extract made pursuant to an embodiment of the present invention and added in an amount of about 5% or less. The feed mixture is fed into a preconditioner and moistened. The moistened feed is then fed into an extruder-cooker and gelatinized. The gelatinized matrix as it leaves the extruder is forced through a die and extruded, thus forming an extrudate. The extrudate is cut into pieces suitable for feeding to dogs, dried at about 110°C for about 20 minutes, and cooled to form pellets. It should be appreciated that part or a totality of the fat mix, or of the fat and oils used, can be added at a later stage, for example, as a coating. The added chicory can enhance the pet's health by, for example, preventing and/or treating inflammation as previously discussed.

The cited prior art of Anantharaman discloses:

A feed mixture can contain corn, fish meal, gluten, vitamins and dried chicory. The moistened feed leaving the preconditioner is then fed into an extruder. The feed passes through a cooking zone in which it is heated at a temperature of up to 150 degrees C. During passage through the extruder, the starch source of the moistened feed is gelatinized to provide a gelatinized matrix made primarily of starch, protein and chicory.

Both the prior art and the instantly claimed invention are processed in the same manner, with the same ingredients; therefore both are the same composition with the same inherent properties.

Obviousness Arguments:

Appellant argues that the cited references of Anantharaman and that of Hwang are not combinable because they teach away one from the other. Appellant argues that the reference of Anantharaman intended purpose was to destroy or remove sesquiterpene lactones but Hwang is directed toward using sesquiterpene lactones obtained from plant material. These arguments have been fully considered but not found to be persuasive of error based on the previous arguments set forth above concerning the reference of Anantharaman.

The examiner does not see evidence that it was the intent of Anantharaman to remove or destroy lactones. It was the intent of Anantharaman to improve the palatability of food for dogs and cats through the process of gelatinization. However, Anantharaman found that through the process of gelatinization, it surprisingly appeared

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to remove or destroy lactones. The process of gelatinizing taught by Ananarathman is the same process in which Appellant uses to make his claimed composition. Further, the reference of Anantharaman actually taught the addition of santonin (i.e. a type of lactone) to the mixture of chicory (column 7, lines 18-30, e.g.). Therefore both products of the instant invention and Anantharaman would have sesquiterpene lactones or both would have none at all.

Finally, Appellant argues that the claims must be viewed as a whole as defined by the claimed invention and not dissected into discrete elements to be analyzed in isolation and cites *W.L. Gore & Assoc., Inc. v. Garlock, Inc* and *In Re Ochiai*. Appellant argues that the examiner should not use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to depreciate the claimed invention. These arguments have been fully considered but not found persuasive.

In response, the examiner views the cited references of Anantharaman in view of Hwang as a whole, obvious over the instant claims based on the arguments set forth above and of record.

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a

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reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Deborah A. Davis
Patent Examiner, AU 1655
September 2009

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